

## Important Points!

Product must be maintained and installed in strict accordance with the National Electrical Code and Dwyer product catalog and instruction bulletin. Failure to observe this warning could result in serious injuries or damages.

For hazardous area applications involving such things as (but not limited to) ignitable mixtures, combustible dust and flammable materials, use an appropriate explosion-proof enclosure or intrinsically safe interface device.

The pressure and temperature limitations shown on the individual catalog pages and drawings for the specified flow switches must not be exceeded. These pressures and temperatures take into consideration possible system surge pressures/temperatures and their frequencies.

Selection of materials for compatibility with the media is critical to the life and operation of Dwyer products. Take care in the proper selection of materials of construction, particularly wetted materials.

Life expectancy of switch contacts varies with applications. Contact Dwyer if life cycle testing is required.

Ambient temperature changes do affect switch set points, since the specific gravity of a liquid can vary with temperature.

Dwyer Products have been designed to resist shock and vibration; however, shock and vibration should be minimized.

Filter liquid media containing particulate and/or debris to ensure the proper operation of our products.

Electrical entries and mounting points in an enclosed tank may require liquid/vapor sealing.

Dwyer Products must not be field-repaired.

Physical damage sustained by the product may render it unserviceable.



# In-Line Flow Switches P2 Series Instruction Bulletin No. 203361

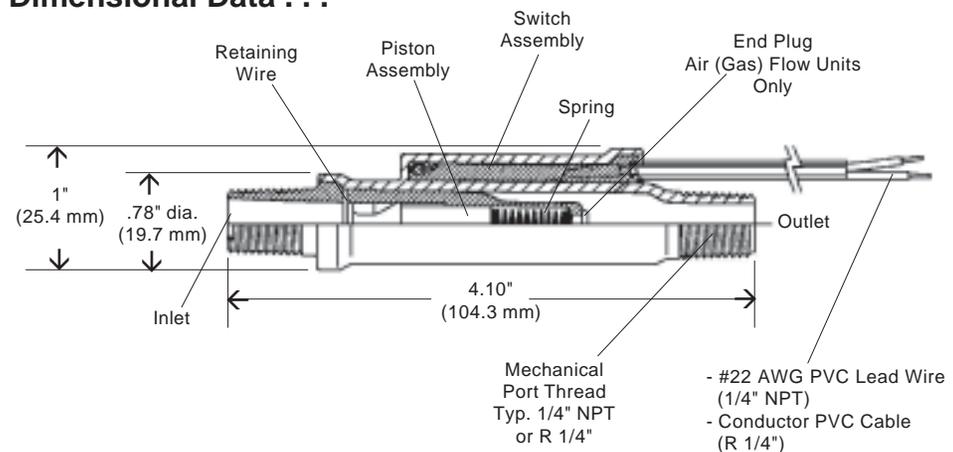
P2 Model Flow Switches operate reliably in any mounted attitude **for which they are calibrated. Other attitudes will slightly alter actuation settings. Unless otherwise specified**, units are calibrated in the vertical inlet port down position.

## Installation . . .

**- Warning -**  
**The P2 is a plastic, taper-threaded instrument.**  
**Over-tightening will result in port breakage!**

All plastic NPT threads should be installed using a suitable thread sealant. (PTFE tape or Permatex "No More Leaks"). Sealant must be kept out of unit during installation. **Improper installation to a process can result in cracking.** Install fittings or adapters onto flow switch using strap wrenches. One to two turns past hand-tight is adequate.

## Dimensional Data . . .



**DWYER INSTRUMENTS, INC.**  
P.O. BOX 373 MICHIGAN CITY, INDIANA 46361, U.S.A.

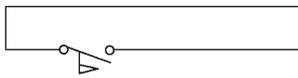
Phone: 219/879-8000  
Fax: 219/872-9057  
Lit-By Fax: 888/891-4963  
www.dwyer-inst.com  
e-mail: info@dwyer-inst.com

## Specifications . . .

<u>Wetted Materials (FDA or NSF-Compliant)</u>	
Housing and Barbs	Noryl <sup>®</sup>
Piston	Noryl <sup>®</sup> and Epoxy
Spring and Stop Pin	316 Stainless Steel
Pressure Rating	150 PSI @ 70°F 50 PSI @ 212°F
Operating Temperature	212°F (100°C), Max.
Required Filtration	50 Micron or Better
Switch, See "Switch Ratings"	SPST, N.O. Pilot Duty 20 VA, 120-240 VAC or VDC
Electrical Termination	No. 22 AWG, 18" L., PVC Lead Wires (1/4"NPT )
	No. 22 AWG, 18" L., PVC 2-Conductor Cable (R 1/4")

## Wiring Diagram . . .

Normally Open

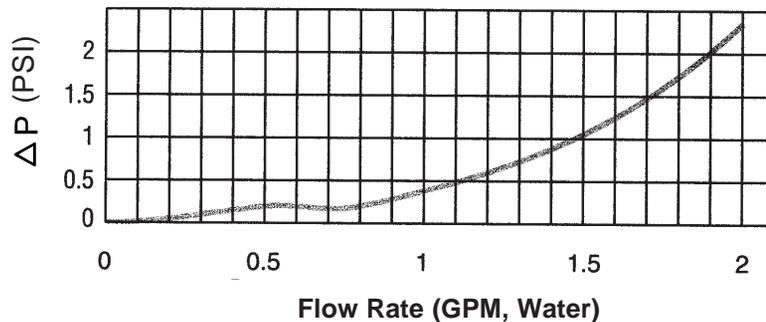


## Switch Ratings Max. Resistive Load

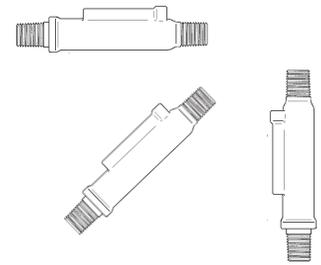
VA	Volts	Amps AC	Amps DC
20	0-30	.4	.3
	120	.17	.13
	240	.08	.06

## Pressure Drop Data

### Typical $\Delta P$ vs Flow Rate

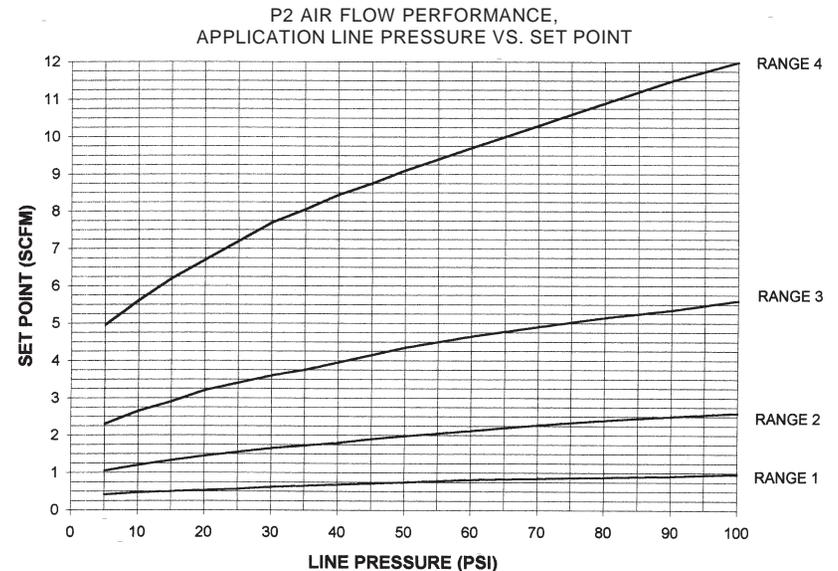


## P2 Flow Switches Can Be Mounted In Various Attitudes. . .



**Note:** Flow settings are based on a vertical position (inlet port down), using water at +70°F on increasing flow. Some variation in set point actuation will occur in other mounting orientations.

There are four standard air flow models of the P2. Set point will vary with line pressure, as shown in the graph below.



## MAINTENANCE/REPAIR

Regular maintenance of the total system is recommended to assure sustained optimum performance. These devices are not field repairable and should be returned to the factory if recalibration or other service is required. After first obtaining a Returned Goods Authorization (RGA) number, send the unit freight prepaid to the following. Please include a clear description of the problem plus any application information available.

Dwyer Instruments, Inc.  
Attn: Repair Department  
102 Highway 212  
Michigan City, IN 46360